

ENVIRONMENTAL CHECKLIST

Purpose of Checklist:

The State Environmental Policy Act (SEPA), Chapter 43.21 RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

Instructions for Applicants:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring the preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can.

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the question from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply". Complete answers to the questions now may avoid unnecessary delays later.

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or to provide additional information reasonably related to determining if there may be significant adverse impact.

Use of checklist for nonproject proposals:

Complete this checklist for nonproject proposals, even though questions may be answered "does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (Part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer," and "affected geographic area," respectively.

A. BACKGROUND

1. Name of proposed project, if applicable:
Tiger Mountain State Forest Trail Bridge Installations
2. Name of applicant:
Department of Natural Resources, South Puget Sound Region
3. Address and phone number of applicant and contact person:
Sam Jarrett, 950 Farman Ave. North, Enumclaw, WA 98022 (206) 375-0448
4. Date checklist prepared:
8/17/2009
5. Agency requesting checklist:
Washington State Department of Natural Resources (DNR)
6. Proposed timing or schedule (including phasing, if applicable):
The bridges are planned to be completed during the summer, (June-October), of 2010, and/or 2011.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal?
If yes, explain.
No

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

Policy for Sustainable Forests, 2006; State Soil Survey; Washington State Department of Natural Resources Habitat Conservation Plan, September 1997; Tiger Mountain State Forest Management Plan, 1986; West Tiger Mountain Natural Resources Conservation Area Management Plan, July 1997.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

No

10. List any government approvals or permits that will be needed for your proposal, if known.

Washington State Department of Fish & Wildlife Hydraulic Project Approval (HPA)

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agency may modify this form to include additional specific information on project description.)

This project involves installing four recreational trail bridges on DNR lands. The new trail bridges are needed due to a severe winter storm that caused major landslides and erosion. The trail bridges will allow recreational trail hikers to safely travel over streams and small drainages that are now too difficult to cross.

Throughout the SEPA Checklist the four trail bridges will be referred to as bridges A, B, C, and D. Bridge A (Tiger Mountain Trail Bridge #1), Bridge B (Tiger Mountain Trail Bridge #2), Bridge C (Tiger Mountain Trail Bridge #3), and Bridge D (15 Mile Trail Bridge).

New bridge construction will include concrete abutments constructed outside of the ordinary high water marks. Excavation will be done using small excavators and/or ordinary hand tools. Steel I-beams, laminated wood or steel cables will be used for stringers. The safety railing material will be dependent on the materials the contractor opts to use meeting the engineered specifications of the design. The decking will be constructed of wood or steel material. Bridge materials will be transported to the site with ATVs with trailers, and/or via motorized wheel barrows, and/or hiking transport. The remainder of the bridges will be constructed by hand on site. Helicopter transport of the trail bridge stringers may be required by the bridge design, materials required, and remoteness of the bridge installation.

12. Location of proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographical map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any applications related to this checklist.

Bridge A (Tiger Mountain Trail Bridge #1) is located on the Tiger Mountain Trail within the West Tiger Mountain Natural Resources Conservation Area. The physical location is in the NE ¼ of the SE ¼ of section 36, T 24 N, R 6 E.

Bridge B (Tiger Mountain Trail Bridge #2) is located on the Tiger Mountain Trail within the West Tiger Mountain Natural Resources Conservation Area. The physical location is in the SW ¼ of the NE ¼ of section 1, T 23 N, R 6 E.

Bridge C (Tiger Mountain Trail Bridge #3) is located on the Tiger Mountain Trail within Tiger Mountain State Forest. The physical location is in the SE ¼ of the NE ¼ of section 12, T 23 N, R 6 E.

Bridge D (15 Mile Trail Bridge) is located on the 15 Mile RR Grade Trail within Tiger Mountain State Forest. The physical location is in the SE ¼ of the NE ¼ of section 12, T 23 N, R 6 E.

B. ENVIRONMENTAL ELEMENTS

1. Earth

- a. General description of the site (circle one): Flat, rolling, **hilly**, **steep slopes**, mountains, other _____.
- b. What is the steepest slope on the site (approximate percent slope)?
5-15%
- c. What general types of soils (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.
Bridge A (Tiger Mountain Trail Bridge #1) - clay soils classified as 'Alderwood'

Bridge B (Tiger Mountain Trail Bridge #2) - clay soils classified as 'Elwell'

Bridge C (Tiger Mountain Trail Bridge #3) - clay soils classified as 'Everett'

Bridge D (15 Mile Trail Bridge) - clay soils classified as 'Beausite'
- d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.
There are none in the immediate vicinity.
- e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.
Does not apply
- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.
None is anticipated, but it is possible erosion control measures may be required by the HPA.
- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?
The new trail bridges will be held in place by concrete abutments several feet outside of the 100 year flood mark. Each concrete abutment is around 15 square feet. The four trail bridges will cover a total of around 120 square feet of ground surface with concrete. So, 120 square feet of total impervious surface will be required to construct the four trail bridges.
- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:
The footings of the replacement bridges will be located outside of the high water mark (outside the 100 year floodplain). During construction of the trail bridge abutments, sediment fencing will be placed between the abutments and stream channel to capture any potential sediment delivery as a result of

abutment construction. It is possible other erosion control measures may be required by the HPA.

2. Air

- a. What types of emissions to the air would result from this proposal (i.e. dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

There may be minor dust emissions during construction, and while equipment is being transported to the site.

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

No

- c. Proposed measures to reduce or control emissions or other impacts to air, if any:

Does not apply, emissions will be minor and temporary.

3. Water

- a. Surface:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

Yes, each of the four trail bridges will span a stream or small drainage.

Bridge A (Tiger Mountain Trail Bridge #1) will span lower High Point Creek which flows into the East Fork of Issaquah Creek.

Bridge B (Tiger Mountain Trail Bridge #2) will span upper High Point Creek which flows into the East Fork of Issaquah Creek.

Bridge C (Tiger Mountain Trail Bridge #3) will span a small drainage flowing into Fifteenmile Creek.

Bridge D (15 Mile Trail Bridge) will span a small drainage flowing into Fifteenmile Creek.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

Yes, each new trail bridge will span each drainage or creek. The abutments will be located outside the 100 year flood mark.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of the fill material.

None

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

No

5) Does the proposal lie within a 100 year floodplain? If so, note location on the site plan.

The trail bridge abutments will lie outside of the 100 year flood plain, the trail bridges will span across each drainage or creek over the 100 year flood plain.

- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

No

b. Ground:

- 1) Will groundwater be withdrawn, or will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.

No

- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals . . .; agricultural; etc.). Describe the general size of the system, the number such systems, the number of houses to be served (if applicable), or the number animals or humans the system(s) are expected to serve.

None

c. Water Runoff (including storm water):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Any water from the trails, in the vicinity of the trail bridge abutments, will be diverted from the trail and be dispersed onto the forest floor.

- 2) Could waste material enter ground or surface waters? If so, generally describe.

No

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

The approaches to the bridges will be uphill. Any water that may potentially travel down the trail towards the bridge will be controlled with water bars before reaching the bridge. This water will be diverted from the trail and dispersed onto the forest floor. The HPA may require more control measures.

4. Plants

a. Check or circle types of vegetation found on the site:

X deciduous tree: **alder**, maple, aspen, other

X evergreen tree: **fir**, cedar, pine, other

X shrubs

X grass

___ pasture

___ crop or grain

___ wet soil plants: cattail, buttercup, bulrush, skunk cabbage, other

___ water plants: water lily, eelgrass, milfoil, other

___ other types of vegetation

b. What kind and amount of vegetation will be removed or altered?

The vegetation impacted will be predominately removal of small brush in the immediate vicinity of the concrete abutments at each bridge site. A total of 3-5 trees may require removal from each bridge site to properly align and install the bridge stringers.

c. List threatened or endangered species known to be on or near the site.

None known, a search of DNR's TRAX database did not show any species near the bridge locations.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

None needed, unless HPA requires otherwise.

5. Animals

- a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site:

birds: hawk, heron, eagle, **songbirds**, other:

mammals: **deer**, bear, elk, beaver, other:

fish: bass, salmon, trout, herring, shellfish, other:

- b. List any threatened or endangered species known to be on or near the site.

None

- c. Is the site part of a migration route? If so, explain.

None

- d. Proposed measures to preserve or enhance wildlife, if any:

The WDFW HPA will give guidance to avoid impacts to wildlife. Work will not be conducted in the streams themselves: also both sides of the four bridges will be accessible via existing trails, so a wet crossing will not be necessary.

6. Energy and Natural Resources

- a. What kinds of energy (electrical, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Does not apply

- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No

- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

Does not apply

7. Environmental Health

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste that could occur as a result of this proposal? If so, describe.

None

- 1) Describe any emergency services that might be required.

None required

- 2) Propose measures to reduce or control environmental health hazards, if any:

None required

- b. Noise

- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

None

- 2) What types and levels of noise would be created by or associated with the project on a short-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

There will be limited noise between 8:00 AM and 5:00 PM during the construction phase. Construction equipment will include a small excavator and small hand tools. The engineered bridge designs may require that the trail bridge stringers be flown into the work site via helicopter depending on materials required to achieve the bridge designs. Construction will occur during the summer months approved through the HPA, usually July-October, over a 4-6 week period at each bridge site.

- 3) Proposed measures to reduce or control noise impacts, if any:
None necessary, the bridge sites are remote and not adjacent to any private homes.

8. Land and Shoreline Use

- a. What is the current use of the site and adjacent properties?
Conservation, timber harvesting and public outdoor recreational trail use
- b. Has the site been used for agriculture? If so, describe.
The general area in the vicinity of Bridge A and B is utilized for low impact recreation and conservation purposes. The general area in the vicinity of Bridges C and D is utilized for recreation and to generate revenue from harvesting timber.
- c. Describe any structures on the site.
At the site of Bridge A, an existing damaged wood trail bridge is on site. This bridge is damaged and will be removed upon completion of the new bridge. At the site of Bridge B, an existing wood trail bridge is on site. This trail bridge will be removed from the site during the bridge installation process. At the sites of Bridges C and D, no structures are on present.
- d. Will any structures be demolished? if so, what?
Yes, the existing damaged bridge being replaced by Bridge A will be removed from the site upon completion of a new cable suspension trail bridge. This bridge will be salvaged or disposed of properly. Bridges B, C, and D will not require demolishing any structures.
- e. What is the current zoning classification of the site?
Forestry
- f. What is the current comprehensive plan designation of the site?
Forest Production Designation
- g. If applicable, what is the current shoreline master program designation of the site?
Does not apply
- h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.
No
- i. Approximately how many people would reside or work in the completed project?
None
- j. Approximately how many people would the completed project displace?
None
- k. Proposed measures to avoid or reduce displacement impacts, if any:
Does not apply
- l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:
This is a recreational trail bridge installation project which is supported by the Tiger Mountain State Forest Management Plan (1986) and West Tiger Mountain Natural Resources Conservation Area Management Plan (July 1997). All four trail bridges will provide critical long term sustainable links between trails, helping disperse the use over the entire trail network. Also, providing safe trail bridge stream crossings will prevent unauthorized wet crossings that could negatively impact water quality and increase riparian

zone erosion.

9. Housing

- a. Approximately how many units would be provided, if any? Indicate whether high, middle or low-income housing.
None
- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.
None
- c. Proposed measures to reduce or control housing impacts, if any:
Does not apply

10. Aesthetics

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?
Bridge A (Tiger Mountain Trail Bridge #1) will be from 8-14 feet in height at the steel towers at the ends of the cable suspension bridge at the abutments. The remaining four trail bridges (B, C, and D) will be no more than six feet tall in height. This includes abutments, stringers, decking, and railing. The bridges will be constructed out of concrete, wood, or steel (abutments), utilizing steel I-beams or steel cables for stringers (running the length of the bridge), and wood (surface decking).
- b. What views in the immediate vicinity would be altered or obstructed?
The new trail bridges will be located within a dense forest setting and cannot be viewed from a long distance away. New views will be provided when walking across the bridges.
- c. Proposed measures to reduce or control aesthetic impacts, if any:
None

11. Light and Glare

- a. What kind of light or glare will the proposal produce? What time of day would it mainly occur?
Does not apply
- b. Could light or glare from the finished project be a safety hazard or interfere with views?
Does not apply
- c. What existing off-site sources of light or glare may affect your proposal?
Does not apply
- d. Proposed measures to reduce or control light and glare impacts, if any:
Does not apply

12. Recreation

- a. What designated and informal recreation opportunities are in the immediate vicinity?
Designated trails in the West Tiger Mountain Natural Resources Conservation Area are open to recreational hiking use. Designated trails within Tiger Mountain State Forest are open to hiking and/or equestrian, and/or mountain biking uses. Also, hunting is allowed per Washington Department of Fish and Wildlife regulations.
- b. Would the proposed project displace any existing recreational uses? If so, describe.
No, the trail bridges will continue to allow for the designated allowable non-motorized recreational uses. The new trail bridges will provide the same

trail system function as the current damaged bridges and eroded sections of trail previously did.

- c. Proposed measures to reduce or control impacts on recreation, including recreational opportunities to be provided by the project or applicant, if any:
This project will improve recreation opportunities in the service area by providing and ensuring long term critical trail connections within Tiger Mountain State Forest and West Tiger Mountain Natural Resources Conservation Area.

13. Historic and Cultural Preservation

- a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.
No, also local tribes have been informed through a DNR Historic and Cultural Resources Review process, this process is underway and is expected to be completed by October 1st, 2009.
- b. Generally describe any landmarks or evidence of historic, archeological, scientific, or cultural importance known to be on or next to the site? If so, generally describe.
None
- c. Proposed measures to reduce or control impacts, if any:
Does not apply

14. Transportation

- a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans if any.
Does not apply
- b. Is the site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?
Does not apply
- c. How many parking spaces would the completed project have? How many would the project eliminate?
Does not apply
- d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).
Does not apply
- e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.
No
- f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.
Does not apply
- g. Proposed measures to reduce or control transportation impacts, if any:
Does not apply

15. Public Services

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.
No

- b. Proposed measures to reduce or control direct impacts on public services, if any.
Does not apply

16. Utilities

- a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

None

- b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

None

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: Doug E. McClelland

Review by: Doug McClelland

Title: Assistant Region Manager

Date: 9/2/2009

D. SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS

(Do not use this sheet for project action)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment. When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?

Proposed measures to avoid or reduce such increases are:

2. How would the proposal be likely to affect plants, animals, fish or marine life?

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

3. How would the proposal be likely to deplete energy or natural resources?

Proposed measures to protect or conserve energy and natural resources are:

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designed (or eligible or under study) for governmental protection: such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

Proposed measures to protect such resources or to avoid or reduce impacts are:

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

Proposed measures to avoid or reduce shoreline and land use impacts are:

6. How would the proposal be likely to increase demands on transportation or public services and utilities?

Proposed measures to reduce or respond to such demand(s) are:

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.